SAFETY DATA SHEETS

This SDS packet was issued with item: 071738608

The safety data sheets (SDS) in this packet apply to one or more components included in the items listed below. Items listed below may require one or more SDS. Please refer to invoice for specific item number(s).

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DENTSPLY/International DENTSPLY/Caulk Safety Data Sheet

510897

1. Identification

1. Identification			
Product Name	SDS Code Number		
IRM [®] LIQUID - Zinc Oxide Eugenol	510897		
Intermediate Restorative Material			
Substance Identity	Date of Last Revision		
IRM [®] LIQUID - Zinc Oxide Eugenol	04/15/11		
Intermediate Restorative Material			
Manufacturer:	Address		
DENTSPLY Caulk	38 West Clarke Avenue		
	Milford DE 19963-1805		
	http://www.caulk.com http://www.dentsply.com		
Grades or Minor Variant Identities	Information Telephone Number		
Not Applicable	(302) 422-4511 (8:00 AM – 4:30 PM Eastern Time)		
Product Use (for Canada)	Emergency Telephone Number		
Not Applicable	(302) 422-4511 (8:00 AM – 4:30 PM Eastern Time)		

2. Hazard(s) Identification



Warning Causes Skin Irritation

Wash hands thoroughly after handling. Wear protective gloves. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/ attention. Take off contaminated clothing and wash before reuse.

3. Composition/Information on Ingredients

Hazardous Components	C.A.S. Number	Exposure Limits	%
Eugenol	99-53-0	10 mg/M^3	> than 98
Acetic Acid	64-19-7	10 PPM	< than 2

3. Hazard Identification

Emergency	Emergency Overview: Material may be irritating to eyes. No significant hazards for emergency responses are known.						
Routes of		Single, Repeated, or	Severity (Mild,	Acute and Chronic Health			
Exposure	Signs and Symptoms	Lifetime Exposure	Moderate, Severe)	Effect(s)	Target Organ(s)		
Eye	Material may cause slight	Single & Repeated	Moderate	Irritation and possible corneal	Not Applicable		
	transient (temporary) irritation.			damage due to the powders used			
				in the product.			
Skin	Material may be an irritant after	Repeated	Mild	Irritation or possible allergic	Not Applicable		
	repeated and prolonged exposure.			response.			
Inhalation	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable		
Ingestion	Material is probably not harmful	Not Applicable	Mild	Not Applicable	Not Applicable		
	if swallowed						
Other	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable		
Medical Con	ditions Aggravated by Exposure Oper	sores and wounds of the	skin.				
Carcinogenic	Carcinogenicity NTP?: Not listed IARC monographs?: Not listed OSHA regulated?: No All components of this product are in						
compliance v	with the inventory listing Requirement	s of the U.S. Toxic Subs	tances Control Act (TSCA) Chemical Substance Inventory.			
Potential Env	vironmental Effects Do not allow to er	nter sewers/ surface or gro	ound water.				

4. First Aid Measures

Routes of	First Aid Instructions	Immediate Medical	Delayed Effects
Exposure		Attention	
Eye	Rinse opened eye for several minutes under running water.	Not Applicable	Not Applicable
	If symptoms persist consult a physician.		

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Skin	Immediately wash with soap and water and rinse thoroughly.	Not Applicable	Not Applicable			
Inhalation	Supply fresh air, consult physician if complaint persist.	Not Applicable	Not Applicable			
Ingestion	Rinse mouth out and then drink plenty of water.	Not Applicable	Not Applicable			
	Induce vomiting and call for medical help.					
Other	Not Applicable	Not Applicable	Not Applicable			
Note to Physicia	Note to Physicians (Treating Testing and Monitoring): Treat symptomatically.					

5. Fire and Explosion Data

Flashpoint Method: 110°C (230°F)	Flammable (Explosive) Limits in Air		Autoignition Temperature: Not	Other: Not	
Closed Cup	LEL: Not Applicable UEL: Not Applicable		Applicable.	Applicable	
Flame Propagation or Burning Rate (for	Properties Contributing to Fire Intensity: Not		Flammability Classification:		
Solids) Not Applicable	Applicable		Not Applicable		
Extinguishing Media: CO ₂ , foam, powder, or water spray. Extinguishing Media to Avoid: Water with full jet.					
Protection and Procedures for Firefighters: Firefighters should wear self-contained respiratory protective devices.					
Unusual Fire and Explosion Hazards: During a fi	re, formation of toxic and/or irritatin	g compounds may be p	present.		

6. Accidental Release Measures

Containment Techniques: Absorb spill with inert material (e.g. vermiculite, sand, and earth), then place material in suitable labeled plastic or metal container. Spill/Leak Clean-up Procedures and Equipment: Absorb spill with inert material (e.g. vermiculite, sand, and earth), then place material in suitable labeled plastic or metal container. Ensure adequate ventilation Evacuation Procedures: Not Applicable Special Instructions: Not Applicable Reporting Requirements: Not Applicable

7. Handling and Storage

Handling Practices and Warnings: Product is intended for dental use only. Handling of this product should be by trained dental healthcare professionals only. Observe normal care for working with chemicals

Storage Practices and Warnings: Store only in the original package. Keep package tightly sealed. Store in a dry area. Store away from food and beverages. Protect from heat and direct sunlight.

8. Exposure Control / Personal Protection



Individual Protection	ividual Protection Personal Protective Equipment for Normal Use	
Measures		Emergencies
Eye/Face	Safety Glasses	Not Applicable
Skin	The glove material has to be impermeable and resistant to the product.	Not Applicable
Inhalation	Not Required	Not Applicable
Body Protection	Protective work clothing	Not Applicable
Occupational Exposure Lim	its: Not Applicable	Engineering Controls: Not Applicable

9. Physical and Chemical Characteristics

Appearance: Colorless or pale yellow liquid.		Odor: Oil of cloves.
Normal Physical State: Liquid.		Melting Point: -10°C (14°F)
Specific Gravity: 1.06 g/cm ³	Solubility in Water: Insoluble	pH: Not Applicable
Vapor Pressure (mm Hg): 0.009	Vapor Density (AIR=1): Not Applicable	Evaporation Rate (Butyl Acetate =1): Not Applicable
Flashpoint Method: Not Applicable	Flammable (Explosive) Limits in Air	Autoignition Temperature: Not Applicable
	LEL: Not Applicable UEL: Not Applicable	
Others Net Applicable		

Other: Not Applicable

10. Stability and Reactivity Data

Incompatibility (Materials to Avoid): Strong oxidizing agents.				
Hazardous Products Produced During Decomposition: Forms carbon monoxide and/or carbon dioxide.				
Hazardous Polymerization: May Occur May Not Occur	Conditions to Avoid: None known			
Stability? Stable Unstable	Conditions to Avoid: None known			

11.Toxicological Information

Toxicity Data, Epidemiology Studies, Carcinogenicity, Neurological Effects, Genetic Effects, Reproductive Effects, or Structure Activity Data: The Oral LD₅₀ for Eugenol, in rats, is 1930mg/Kg. Emergency Overview: Material may be mildly irritating to eyes. Acute and Chronic Health Routes of Single, Repeated, or Severity (Mild, Signs and Symptoms Torgot Orgon(a) Evnoqura Lifetime Exposure Moderate Severe Effect(s)

Exposure	Signs and Symptoms	Lifetime Exposure	Moderate, Severe)	Effect(s)	Target Organ(s)
Eye	Material may cause slight	Single & Repeated	Moderate	Irritation and possible corneal	Not Applicable
	transient (temporary) irritation.			damage due to the fillers used in	
				the product.	
Skin	Material may be an irritant after	Repeated	Mild	Irritation or possible allergic	Not Applicable
	repeated and prolonged exposure.			response.	

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Inhalation	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Ingestion	Material is probably not harmful	Not Applicable	Mild	Not Applicable	Not Applicable
	if swallowed				
Other Not Applicable Not Applicable Not Applicable Not Applicable Not A					Not Applicable
Medical Conditions Aggravated by Exposure Open sores and wounds of the skin.					
Carcinogenicity NTP?: Not listed IARC monographs?: Not listed OSHA regulated?: No All components of this product are in					
compliance with the inventory listing Requirements of the U. S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.					
Potential Environmental Effects: Potential Environmental Effects Do not allow to enter sewers/ surface or ground water.					
NFPA Hazard	NFPA Hazard Classification Ratings (Scale 0-4), Health = 1, Fire = 1, Reactivity = 0				

12.Ecological Information

Toxicity Data, Environmental Fate, Physical/Chemical Data, or other Data Supporting Environmental Hazard Statements: Water Hazard Class 1 (Selfassessment): slightly hazardous for water. Do not allow product to reach ground water, water streams or sewage system.

13.Disposal Considerations

Regulations: Must not be disposed of together with household garbage. Dispose of material as solid waste in a closed container. Dispose of in accordance with Federal, State and Local regulations Properties (Physical/Chemical) Affecting Disposal: Dispose of material as solid waste in a closed container.

14.Transport Information

Regulated for Shipping: No. Not Regulated	DO	T Shipping Name: Not Regulated	Packing Group: Not Applicable
Do Changes in Quantities, packaging, or shipment	DO	T Hazard Class: Not Applicable	UN Number: Not Applicable
method change product classification? No			

15.Regulatory Information

This product has been classified in accordance with the hazard criteria of the Globally Harmonized System of Classification and Labeling of Chemicals and the SDS contains all of the information required by the Canadian Controlled Products Regulations. U.S. Federal Regulations: <u>CERCLA 103 Reportable Quantity</u>: This product is not subject to CERCLA reporting requirements. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations

Section 313 Toxic Chemicals: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

Section 302 Extremely Hazardous Substances (TPQ): None

EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on the TSCA inventory.

U.S. State Regulations California Proposition 65: This product does not contain any chemicals, which are on the California Proposition 65 list.

Canada WHMIS, Workplace Hazardous Materials Information System: This product is not a controlled product.

International Regulations: Canadian Environmental Protection Act: This product is a medical device and not subject to chemical notification requirements.

European Community Labeling: Not a dangerous preparation.

European Community Labeling: R22 Harmful if swallowed. S24/25 Avoid contact with skin and eyes. S36 Wear suitable protective clothing.

European Inventory of New and Existing Chemicals Substances (EINECS): This product is a medical device and not subject to chemical notification requirements. CAS# Eugenol 97-53-0 EINECS: 202-589-1 Eugenol.

Other: Not Applicable

16.Other Information

To the best of our knowledge this product does not contain gluten, wheat grains, flaxseed, natural rubber, or natural latex. All components are synthetically produced; none are derived from animal products.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific products features and shall not establish a legally valid contractual relationship.

The attached safety data sheet covers the dangers and measures to be taken when large quantities of material are released, for example due to accidents during transport or storage by the dealer. For quantities of material typically used in clinical practice, information necessary for safe use and storage of the product is given in the DFU.

Safety Data Sheet DentsplySirona

1. Identification	
Product Name	SDS Code Number
IRM [®] LIQUID - Zinc Oxide Eugenol Intermediate	510897
Restorative Material	
Substance Identity	Date of Last Revision
IRM [®] LIQUID - Zinc Oxide Eugenol	7/8/2019
Intermediate Restorative Material	
Manufacturer:	Address
DENTSPLY Caulk	38 West Clarke Avenue
	Milford DE 19963-1805
	http://www.dentsplysirona.com
Grades or Minor Variant Identities	Company Telephone Number (Product Inquiries)
Not Applicable	(302) 422-4511 (8:00 AM - 4:30 PM Eastern Time)
Product Use (for Canada)	Emergency Telephone Number
Not Applicable	CHEMTREC: 1-800-424-9300 (24 hours)
	(Outside U.S. +1-703-527-3887) CCN6510

2. Hazard(s) Identification



Wash hands thoroughly after handling.

Wear protective gloves. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/ attention. Take off contaminated clothing and wash before reuse.

3. Composition/Information on Ingredients

Hazardous Components	C.A.S. Number	Exposure Limits	%
Eugenol	97-53-0	10 mg/M^3	> than 98
Acetic Acid	64-19-7	10 PPM	< than 2

4. First Aid Measures

Routes of	First Aid Instructions	Immediate Medical	Delayed Effects
Exposure		Attention	
Eye	Rinse opened eye for several minutes under running water.	Not Applicable	Not Applicable
	If symptoms persist consult a physician.		
Skin	Immediately wash with soap and water and rinse thoroughly.	Not Applicable	Not Applicable
Inhalation	Supply fresh air, consult physician if complaint persist.	Not Applicable	Not Applicable
Ingestion	Rinse mouth out and then drink plenty of water.	Not Applicable	Not Applicable
	Induce vomiting and call for medical help.		
Other	Not Applicable	Not Applicable	Not Applicable
Note to Physici.	ote to Physicians (Treating. Testing and Monitoring): Treat symptomatically.		

5. Fire and Explosion Data

Flammable (Explosive) Limits in Air LEL: Not Applicable UEL: Not Applicable Properties Contributing to Fire Intensity: Not Applicable

Flashpoint Method: 110°C (230°F)

Unusual Fire and Explosion Hazards: During a fire, formation of toxic and/or irritating compounds may be present

6. Accidental Release Measures

 Closed Cup
 LEL: Not Appucatio
 ULEL: Not Appucatio

 Flame Propagation or Burning Rate (for
 Properties Contributing to Fire Intensity: Not
 Flam

 Solids) Not Applicable
 Applicable
 Not

 Extinguishing Media: CO₂, foam, powder, or water spray.
 Applicable
 Not

 Protection and Procedures for Firefighters: Firefighters should wear self-contained respiratory protective devices.
 Not

Other: Not Applicable

Air Autoignition Temperature: Not Not Applicable Applicable. ensity: Not Flammability Classification: ensity: Not Not Applicable Extinguishing Media to Avoid: Water with full jet.

	Other	
Induce vomiti		
Rinse mouth out	Ingestion	
Supply fresh air, co	Inhalation	
Immediately wash with	Skin	
If symptoms	`	
Rinse opened eye for	Eye	
	Exposure	

Containment Techniques: Absorb spill with inert material (e.g. vermiculite, sand, and earth), then place material in suitable labeled plastic or metal container.							
Spill/Leak Clean-up Procedures and Equipment: Absorb spill with inert material (e.g. vermiculite, sand, and earth), then place material in suitable labeled							
plastic or metal container. Ensure adequate ventilation.							
Evacuation Procedures: Not Applicable	Special Instructions: Not Applicable	Reporting Requirements: Not Applicable					

7. Handling and Storage

Handling Practices and Warnings: Product is intended for dental use only. Handling of this product should be by trained dental healthcare professionals only. Observe normal care for working with chemicals. Storage Practices and Warnings: Store only in the original package. Keep package tightly sealed. Store in a dry area. Store away from food and beverages.

Protect from heat and direct sunlight.

8. Exposure Control / Personal Protection



Individual Protection	Personal Protective Equipment for Normal Use	Personal Protective Equipment for				
Measures	Measures					
Eye/Face	Safety Glasses	Not Applicable				
Skin	The glove material has to be impermeable and resistant to the product.	Not Applicable				
Inhalation	Not Required	Not Applicable				
Body Protection	Protective work clothing	Not Applicable				
Occupational Exposure Lim	Engineering Controls: Not Applicable					

9. Physical and Chemical Characteristics

Appearance: Colorless or pale yellow liquid.		Odor: Oil of cloves.							
Normal Physical State: Liquid.		Melting Point: -10°C (14°F)							
Specific Gravity: 1.06 g/cm ³	Solubility in Water: Insoluble	pH: Not Applicable							
Vapor Pressure (mm Hg): 0.009	Vapor Density (AIR=1): Not Applicable	Evaporation Rate (Butyl Acetate =1): Not Applicable							
Flashpoint Method: Not Applicable	Flammable (Explosive) Limits in Air	Autoignition Temperature: Not Applicable							
	LEL: Not Applicable UEL: Not Applicable								
Other: Not Applicable									

10. Stability and Reactivity Data

Incompatibility (Materials to Avoid): Strong oxidizing agents.								
Hazardous Products Produced During Decomposition: Forms carbon monoxide and/or carbon dioxide.								
Hazardous Polymerization: May Occur May Not Occur Conditions to Avoid: None known								
Stability? Stable Unstable Conditions to Avoid: None known								

11.Toxicological Information

Toxicity Data, Epidemiology Studies, Carcinogenicity, Neurological Effects, Genetic Effects, Reproductive Effects, or Structure Activity Data:										
The Oral LD ₅₀ for Eugenol, in rats, is 1930mg/Kg.										
Emergency Overview: Material may be mildly irritating to eyes.										
Routes of Single, Repeated, or Severity (Mild, Acute and Chronic Health										
Exposure Signs and Symptoms Lifetime Exposure Moderate, Severe) Effect(s) Target Organ(s)										
Eye Material may cause slight transient (temporary) irritation. Single & Repeated Moderate Irritation and possible corneal damage due to the fillers used in the product. Not Applicable										
Skin Material may be an irritant after repeated and prolonged exposure. Repeated Mild Irritation or possible allergic response. Not Applicable										
Inhalation Not Applicable Not Applicable Not Applicable Not Applicable										
Ingestion Material is probably not harmful Not Applicable Mild Not Applicable Not Applicable Not Applicable										
Other	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable					
Medical Conditions Aggravated by Exposure Open sores and wounds of the skin.										
Carcinogenicity NTP?: Not listed IARC monographs?: Not listed OSHA regulated?: No All components of this product are in										
compliance with the inventory listing Requirements of the U. S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.										
Potential Envir	onmental Effects: Potential Environme	ental Effects Do not allow t	o enter sewers/ surface	or ground water.						
NFPA Hazard (Classification Ratings (Scale 0-4), Hea	lth = 1, Fire = 1, Reactivit	y = 0							

12.Ecological Information

Toxicity Data, Environmental Fate, Physical/Chemical Data, or other Data Supporting Environmental Hazard Statements: Water Hazard Class 1 (Selfassessment): slightly hazardous for water. Do not allow product to reach ground water, water streams or sewage system.

13.Disposal Considerations

Regulations: Must not be disposed of together with household garbage. Dispose of material as solid waste in a closed container. Dispose of in accordance with Federal, State and Local regulations

Prop	erties	(Ph	vsical/	Che	mica	1) A	Affect	ting	Dis	posal	: Dis	pose	of	material	as	solid	was	te in	a c	losed	contai	ner.

14.Transport Information

Regulated for Shipping: No. Not Regulated	DOT Shipping Name: Not Regulated	Packing Group: Not Applicable
Do Changes in Quantities, packaging, or shipment	DOT Hazard Class: Not Applicable	UN Number: Not Applicable
method change product classification? No		

15.Regulatory Information

This product has been classified in accordance with the hazard criteria of the Globally Harmonized System of Classification and
Labeling of Chemicals and the SDS contains all of the information required by the Canadian Controlled Products Regulations.
U.S. Federal Regulations: <u>CERCLA 103 Reportable Quantity</u> : This product is not subject to CERCLA reporting requirements.
Many states have more stringent release reporting requirements. Report spills required under federal, state and local
regulations
Section 313 Toxic Chemicals: This product contains the following chemicals subject to Annual Release Reporting
Requirements Under SARA Title III, Section 313 (40 CFR 372): None
Section 302 Extremely Hazardous Substances (TPQ): None
EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on the TSCA inventory.
U.S. State Regulations California Proposition 65: This product does not contain any chemicals, which are on the California
Proposition 65 list.
Canada WHMIS, Workplace Hazardous Materials Information System: This product is not a controlled product.
International Regulations: Canadian Environmental Protection Act: This product is a medical device and not subject to
chemical notification requirements.
European Community Labeling: Not a dangerous preparation.
European Community Labeling: R22 Harmful if swallowed S24/25 Avoid contact with skin and eyes S36 Wear suitable protective clothing

European Community Labeling: R22 Harmful if swallowed. S24/25 Avoid contact with skin and eyes. S36 Wear suitable protective clothing. European Inventory of New and Existing Chemicals Substances (EINECS): This product is a medical device and not subject to chemical notification requirements. CAS# Eugenol 97-53-0 EINECS: 202-589-1 Eugenol.

Other: Not Applicable

16.Other Information

To the best of our knowledge this product does not contain gluten, wheat grains, flaxseed, natural rubber, or natural latex. All components are synthetically produced; none are derived from animal products.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific products

features and shall not establish a legally valid contractual relationship.

The attached safety data sheet covers the dangers and measures to be taken when large quantities of material are released, for example due to accidents during transport or storage by the dealer. For quantities of material typically used in clinical practice, information necessary for safe use and storage of the product is given in the DFU.